

## ABSTRACT

### **HISTOLOGICAL OBSERVATION OF THE TONGUE STRUCTURE OF *Laudakia stellio* (LINNEAEUS 1758) (REPTILIA: AGAMIDAE) WHICH LIVES AT DIFFERENT ALTITUDES IN AYDIN**

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In the present study , it's aimed to reveal histological characteristics of tongue of the adult lizard *Laudakia stellio* and to examine structural changes in tongue histologically, among individuals which live at different altitudes.

The *L. stellio* used in this study were collected from Kepez/AYDIN (64 m.) and Paşayaylası/AYDIN (1287 m.) in June of 2004. Samples were embedded in paraffin and sectioned at 5 µm. Histological sections were stained using H-E, PAS, Gomori's Trichrome, PAS-H, thionin stains.

*L. stellio* has thick, fleshy and short tongue with non bifurcation tip of tongue. Oval-shaped and papilla free tongue tip is covered by keratinized stratified squamous epithelium. Light microscopy observations revealed differences between dorsal and ventral parts of tongue. Dorsal part has different type of papillae and is rich in secretory glands and cells. These are fungiform and cylindrical papillae. Papilla free surface of ventral part is covered by keratinized stratified squamous epithelium. Under light microscopy, two types of secretory glands were observed: Serous and mucous. Finally, the hind part of the dorsal surface of tongue has a few taste buds.

As a result of the study, histological observations revealed that no variations exist in terms of tongue structure among individuals of *L. stellio* which live at different altitudes.

**Key words:** *Laudakia stellio*, tongue, histology, papilla, light microscope